ELECTRIMOTION INC.
1484 DALE FORD RD.
DELAWARE, OH 43015
740.362.0251

EM Timing Controller
Nostalgia Top Fuel Version

EM NOS TIMING
Ver 5.00

F1   F2   F3

HOME   **EM**   ENTER

COMMAND MODULE

Connections

Inputs :	
2 pin plug (red-black) wires 9-16 volt input Purple Wire (Rpm output) To Tach	Controller starts when Start RPM is met. Start RPM is programmed by the user.

Timing Control

TACH OUT	Ign Out				GRN Trig in

Mounting:	Overall Dims:
10-32 studs—2.500" by 2.000"	6.0 " *4.5" *1.5"

Overview:

The Electrimotion Timing Controller is designed to control Ignition Timing on high performance racing vehicles.

- The Electrimotion Timing Controller allows the users to build an ignition retard curve with 16 (Time and Degree) points and an Idle retard setting.

- The Timing Controller timing sequence is started by revving the motor above the "Start RPM"

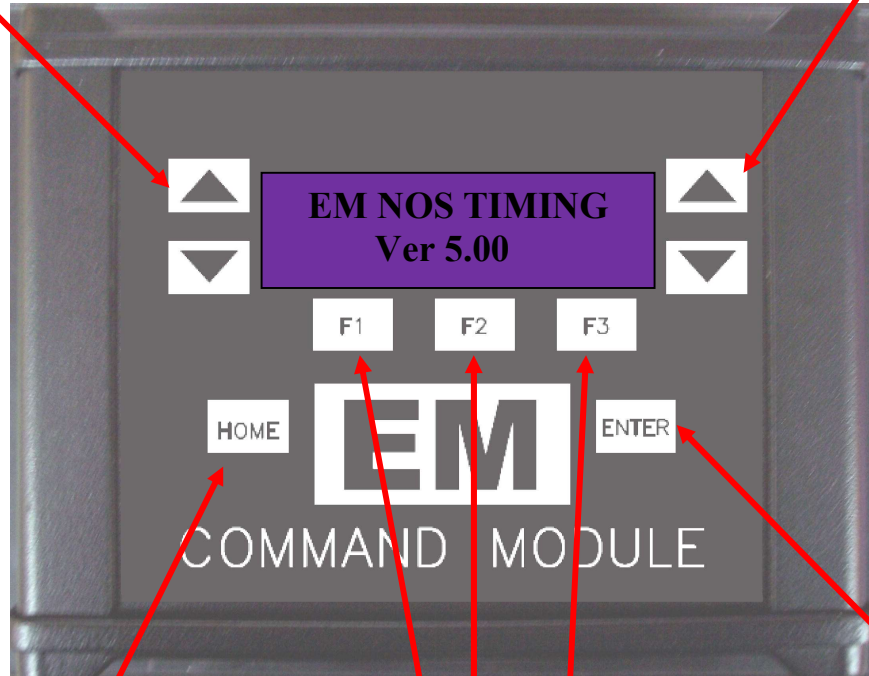# Button Functions:

Menu up and Down:

Used to select mode of operation.

Up and Down:

Used to select channel and also used to change data values

EM NOS TIMING
Ver 5.00

F1   F2   F3

HOME   EM   ENTER

COMMAND MODULE

Home Button:

Returns unit to starting screen.

Function Buttons:

Used to enter the edit modes.

F1: Used to enter (time) edit mode.
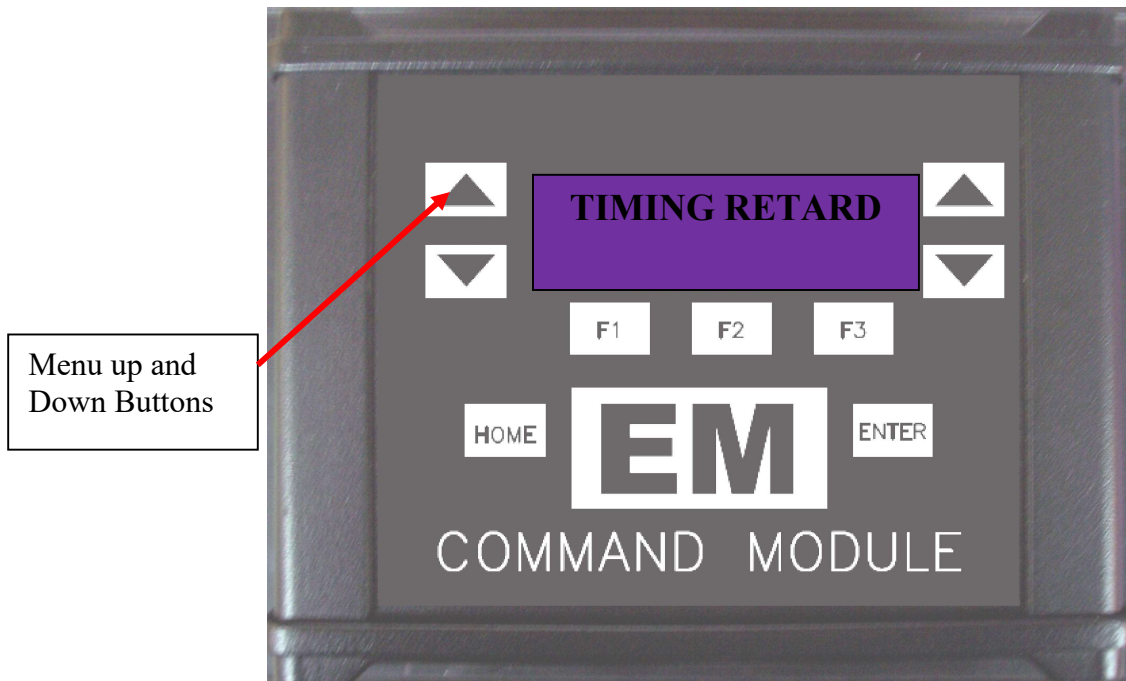
F2: Used to enter (Degrees) edit mode.

F3:

Enter Button:

Used to select menu.

Also, used to save an edited value.
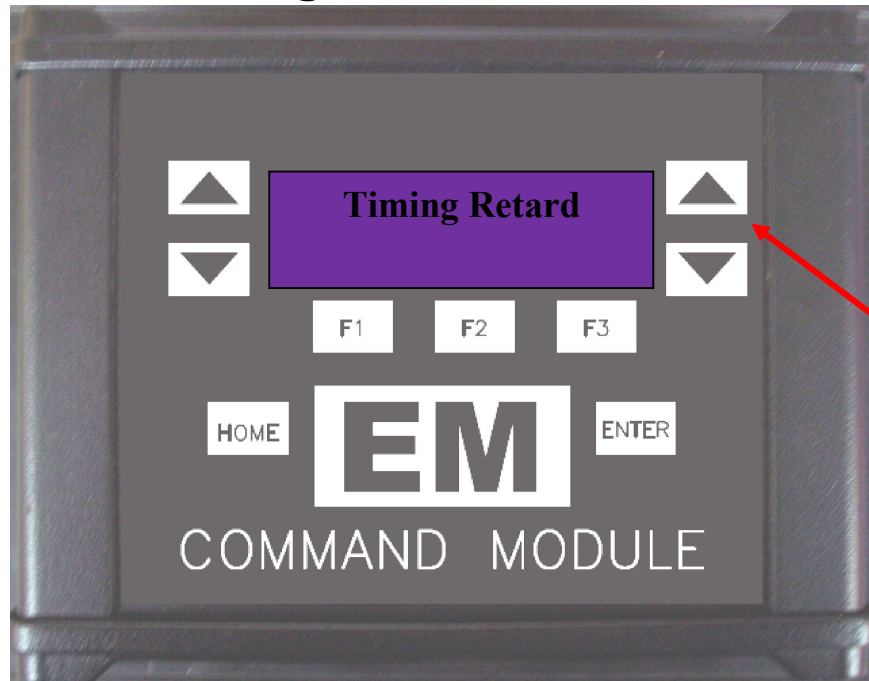
Module Operation:

Menu up and Down Buttons

Main Menu:

By Pressing the Menu up button, you can cycle through the installed modules. Press the enter button to enter the selected menu item.
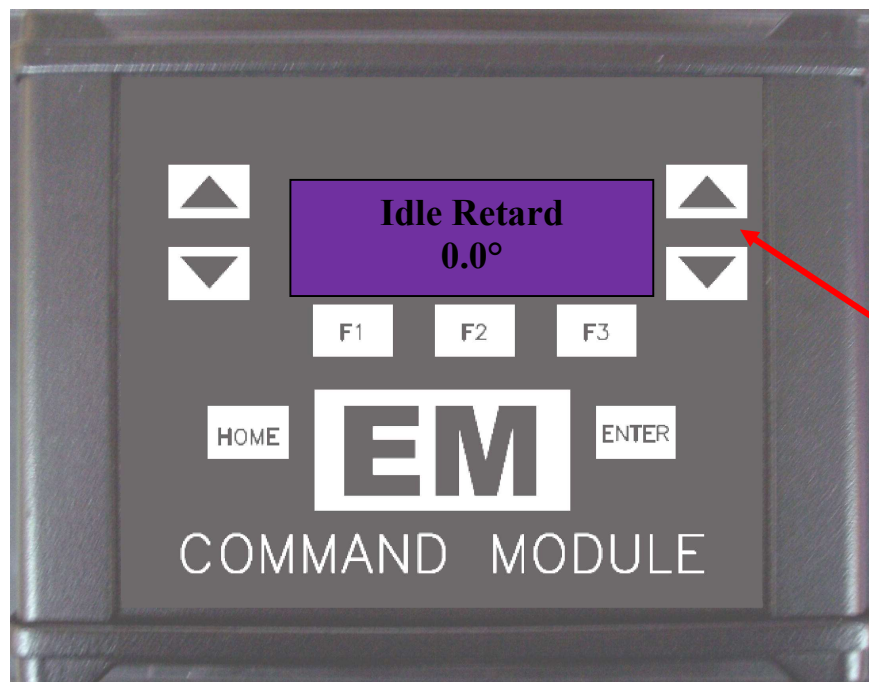
Main Menu items

- Timing Retard
- Battery Voltage (Displays current battery voltage)

Timing Controller Mode:
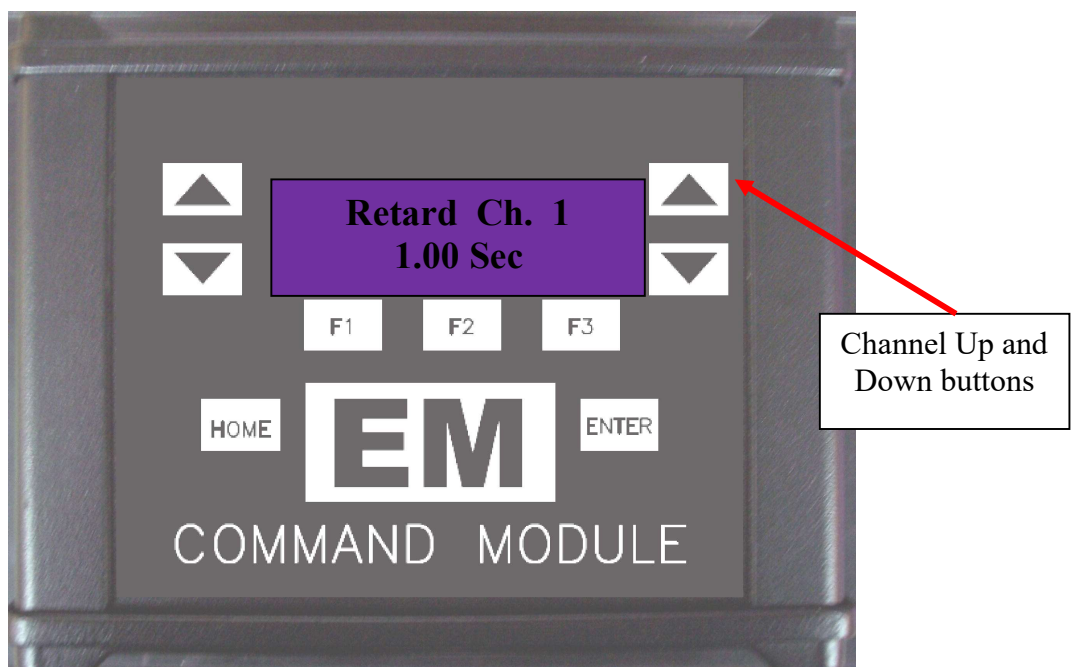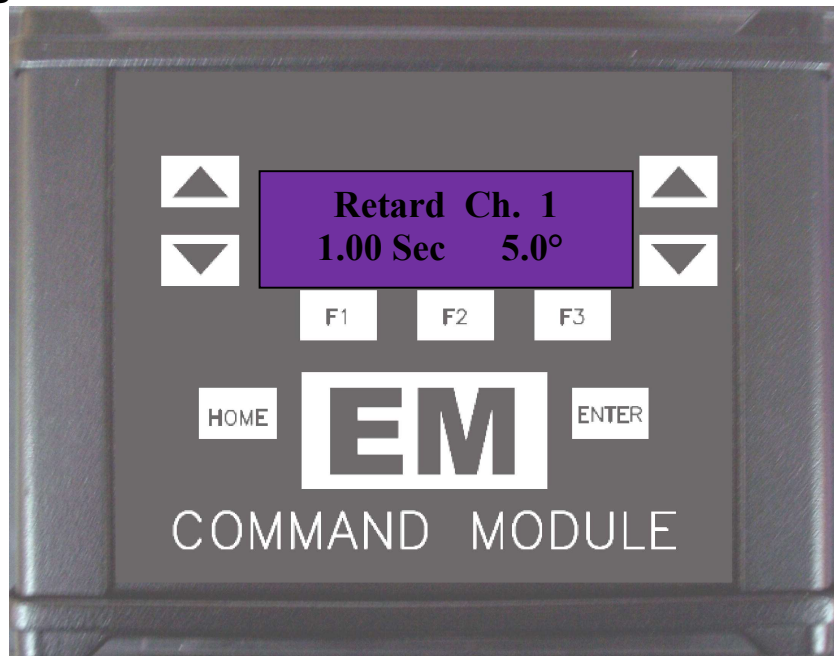

Channel Up and Down buttons

1. With the main menu at Timing Retard, press enter.
2. The Idle Retard will be displayed for you. **(Idle Retard is how much timing is out at idle. Verify with a timing light.)**
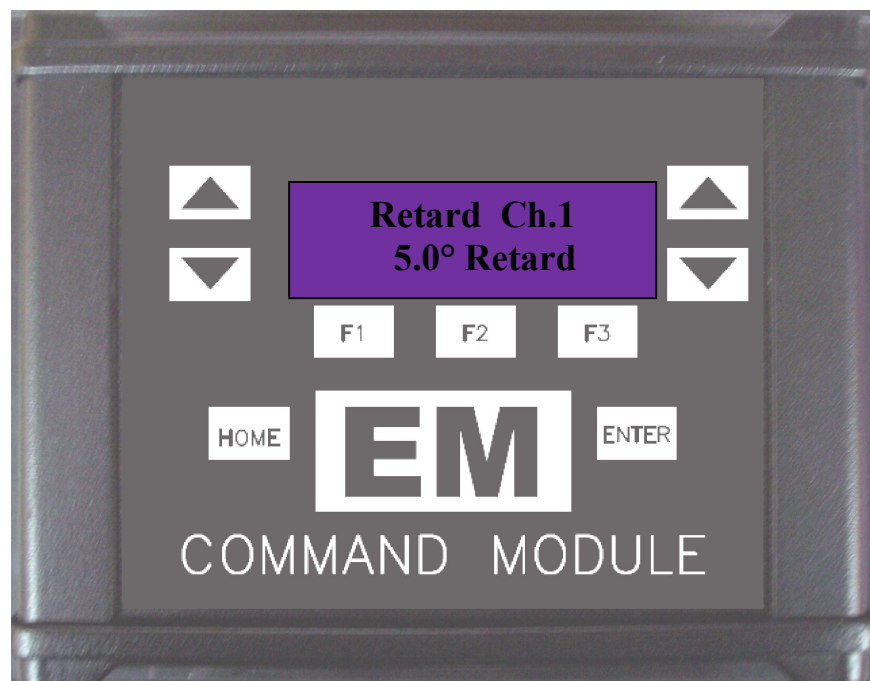

Channel Up and Down buttons

3. By pressing the channel up and down buttons you can review the Idle Retard, and each of the time/retard points.

4. **To edit a time, press the F1 button, the screen will change to a blinking time. Blinking indicates that you are in the process of changing a value.**
5. **Now the channel up and down buttons will allow you to change the seconds digit of the time.**
6. **If you would like to change the tenths digit, press F2. If you would like to change the hundredths digit, press the F3 button.**
7. **To save the new time, press enter and the screen will stop blinking.**

Channel Up and Down buttons

1. To edit a retard value, press the F2 button, the screen will change to a blinking retard value.
2. Now the channel up and down buttons will allow you to change the retard value.
3. After pressing F2 you will be able to edit the tens digit of the retard value, to change the ones digit, press F3 while in edit mode.
4. To save the edited value, press enter and the screen will stop blinking.

Start RPM
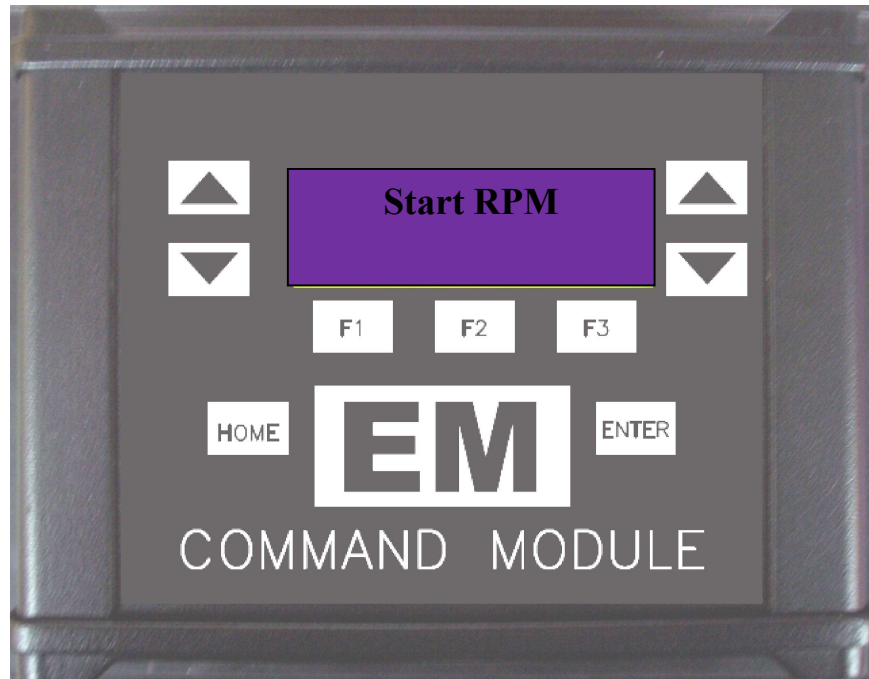
1. To edit the Start RPM value, press the F2 button, the screen will change to a blinking RPM value.
2. Now the channel up and down buttons will allow you to change the Start RPM value.
3. After pressing F2 you will be able to edit the hundreds digit of the RPM value, to change the tens digit, press F3 while in edit mode, to change the Thousands digit, press F1.
4. To save the edited value, press enter and the screen will stop blinking.

Test Start

1. To test the timing sequence in the pits.
2. With the main menu at Timing Retard, press enter.
3. Now press the channel down button. The screen will show "Test Start"
4. Press the Enter Button and the screen will switch to "Timer Activated" as the timing sequence is started. After 8 seconds the timer will reset.

Shift Curve

1. To shift the entire timing curve up or down.
2. With the main menu at Timing Retard, press enter.
3. Now press the channel down button two times. The screen will show "Shift Curve"
4. Press the F2 button and the screen will show "+0.0°"
5. Using the channel up/down button and the F1 and F2 buttons, you can adjust the value to Shift the Curve.
6. Press enter when you are done and the entire timing curve will shift up or down based on the value you entered.
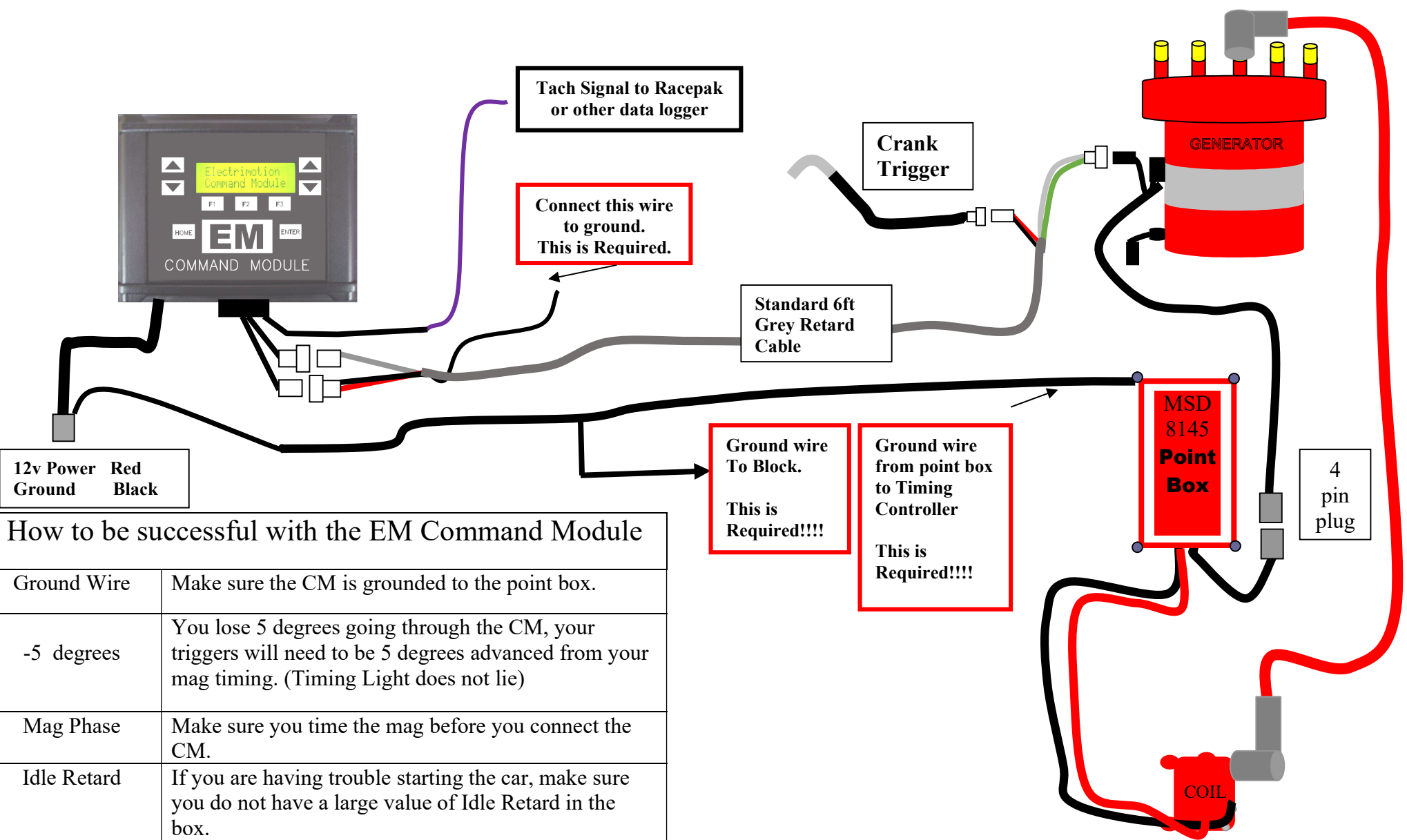7. Scroll back through the timing points to verify.

PC Software

Our PC software is located on the SDCARD that comes with the controller.

PC software is also available for download at
http://www.electrimotion.com/Command%20Module%20Page.htm

General Warnings:

IT IS THE RESPONSIBILITY OF THE PERSON INSTALLING ANY CONTROL SYSTEM COMPONENT OR KIT TO DETERMINE THE SUITABILITY OF THE COMPONENT OR KIT FOR THAT PARTICULAR APPLICATION. IF YOU ARE NOT SURE HOW TO SAFELY USE THIS COMPONENT OR KIT, YOU SHOULD NOT INSTALL OR USE IT. DO NOT ASSUME ANYTHING. IMPROPERLY INSTALLED OR MAINTAINED CONTROL SYSTEMS ARE DANGEROUS. IF YOU ARE NOT SURE, GET HELP OR RETURN THE PRODUCT. YOU MAY OBTAIN ADDITIONAL INFORMATION AND TECHNICAL SUPPORT BY CALLING ELECTRIMOTION AT (740) 362-0251, OR VISIT OUR WEB SITE AT WWW.ELECTRIMOTION.COM. USE OF ELECTRIMOTION TECHNICAL SUPPORT DOES NOT GUARANTEE PROPER INSTALLATION. YOU, OR THE PERSON WHO DOES THE INSTALLATION, MUST KNOW HOW TO PROPERLY USE THIS PRODUCT. IT IS NOT POSSIBLE OVER THE PHONE TO UNDERSTAND OR FORESEE ALL THE ISSUES THAT MIGHT ARISE IN YOUR INSTALLATION. LIABILITY ON DEFECTIVE MERCHANDISE OR MERCHANDISE NOT CONFORMING TO MANUFACTURER'S SPECIFICATIONS IS LIMITED TO THE REPAIR OR REPLACEMENT OF THE DEFECTIVE ITEM. RACING EQUIPMENT MUST BE MAINTAINED AND SHOULD BE CHECKED REGULARLY FOR FATIGUE, DAMAGE, AND WEAR. DO NOT OPERATE ANY VEHICLE ON UNTESTED CONTROL SYSTEMS!

Typical System W/ NOS Timing Controller

Tach Signal to Racepak or other data logger

Crank Trigger

GENERATOR

Electrimotion Command Module

F1 F2 F3

HOME EM ENTER

COMMAND MODULE

Connect this wire to ground. This is Required.

Standard 6ft Grey Retard Cable

12v Power   Red
Ground   Black

Ground wire To Block.

This is Required!!!!

Ground wire from point box to Timing Controller

This is Required!!!!

MSD 8145 **Point Box**

4 pin plug

COIL

How to be successful with the EM Command Module

Ground Wire	Make sure the CM is grounded to the point box.
-5 degrees	You lose 5 degrees going through the CM, your triggers will need to be 5 degrees advanced from your mag timing. (Timing Light does not lie)
Mag Phase	Make sure you time the mag before you connect the CM.
Idle Retard	If you are having trouble starting the car, make sure you do not have a large value of Idle Retard in the box.
Retard Harness	The retard harness will plug in either way but only one way is correct, The Ground lead should be to the CM end.
General Wiring	Run all CM wiring as far as possible away from coil and plug wires to reduce RF interference.